

DataLine

How South Carolinians Measure Up

Living Longer and Living Better Health-related Quality of Life for South Carolinians

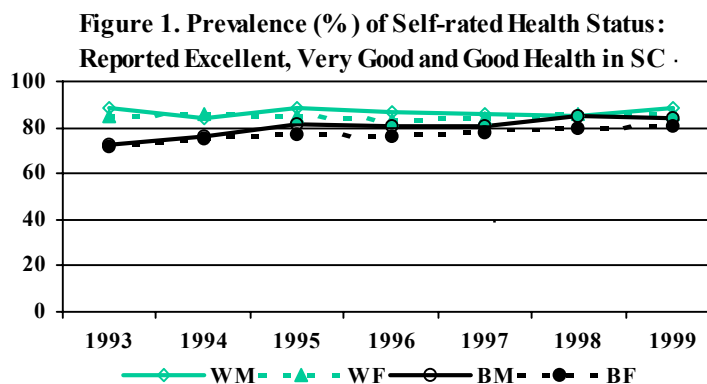
To increase quality and years of healthy life is the first goal of *Healthy People 2010*. Health-Related Quality of Life (HRQOL) measures a person's quality of life and is used to evaluate the success of efforts to prevent and control chronic diseases that may lead to disability.

What is the HRQOL? In general, HRQOL is a very broad concept that reflects a personal sense of physical and mental health and the ability to react to factors in the physical and social environments. HRQOL assesses dysfunction and disability that can not be measured by "standard" measures of morbidity and mortality. Several methods are used to measure HRQOL, including general health status, unhealthy days, and years of healthy life. Disability and chronic diseases are related conditions that often are associated with poor HRQOL.

General Health Status

The Behavioral Risk Factor Surveillance System (BRFSS-see explanation on back cover) has included four general HRQOL questions since 1993. These self-reported questions covered overall health and recent physical health, mental health, and activity limitation.

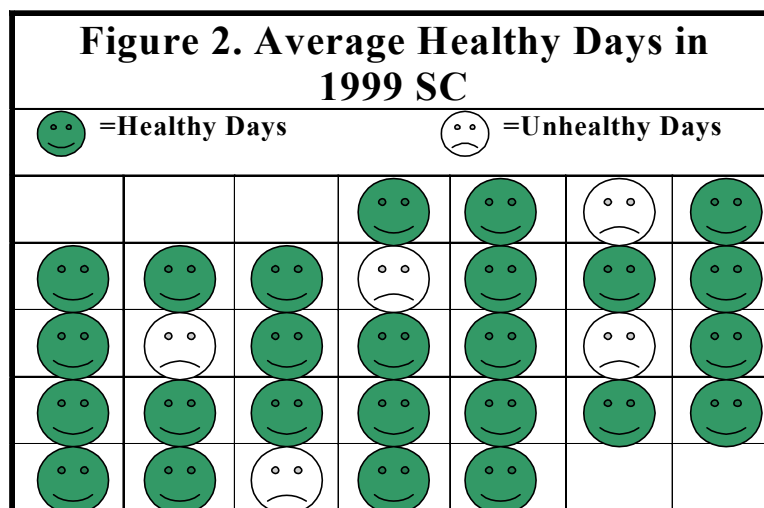
Self-rated health is an independent predictor of mortality and is strongly associated with a person's objective physical and mental health status. When they were asked about their general health status, 86% of adults in South Carolina reported having excellent, very good, or good health in 1999. Figure 1 shows that whites generally have better self-rated health status than do African-Americans over the years. However, the racial gaps in self-rated health status tend to be closing in recent years. BRFSS data also show that self-rated health is associated with age and education. People of young age and people with high school degrees or some college education are more likely to report having excellent, very good, or good general health than their counterparts.



HRQOL can also be measured by the number of recent *physically unhealthy, mental unhealthy days, and days of usual activity limitations*. In 1999, South Carolina adults reported that in the past 30 days they experience, an average of 3.2 days of poor physical health, 2.7 days of poor mental health, and 1.9 days of usual activity limitations due to poor physical or mental health. Number of poor health days on physical, mental health and activity limitations is associated with age, race, sex and education. As seen in Table 1, young adults reported fewer days with poor physical health or with activity limitation, but greater number of days with poor mental health than older adults. Women tend to report greater number of days with poor physical health and days with activity limitation than men. African-Americans reported less days with activity limitation but more days with poor physical health than whites. People with higher education reported fewer days with poor physical or mental health and fewer days with activity limitation than people with less education.

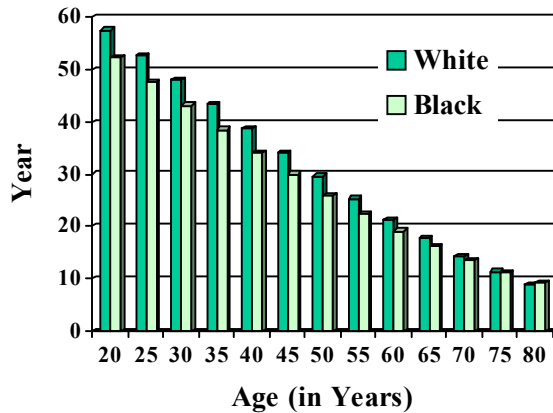
Table 1. Average Days of Poor Physical Health, Mental Health, and Usual Activity Limitation (in the past 30 days) Due to Poor Physical or Mental Health, 1999 SC BRFSS			
	Poor Physical Health	Poor Mental Health	Usual Activity Limitation
Age			
18-44	2.0	2.9	1.3
45-64	4.1	3.0	2.5
65+	5.5	1.7	2.9
Education			
<HS	6.7	4.3	4.3
HS/Some College	2.8	2.7	1.6
College	1.9	1.9	1.1
Race-Sex			
White-Male	2.6	2.2	1.5
White-Female	3.5	3.1	2.4
Black-Male	2.9	2.8	1.9
Black-Female	3.7	2.7	1.8

“*Healthy days*” is a summary index of number of person-days when both physical and mental health are at least good in the 30 days prior to the interview. “*Unhealthy days*” is calculated based on the number of poor healthy days on physical and mental health. In 1999, the average number of healthy days was 25 among South Carolina adults (Figure 2).



Years of Healthy Life

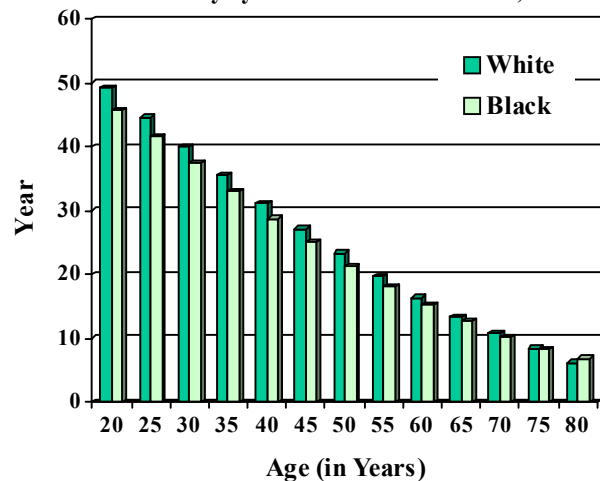
Figure 3. Life Expectancy by Race in South Carolina, 1998



Years of healthy life is a measurement similar to life expectancy and used as an overall indicator of the quality of life. Years of healthy life represents the number of years, in average, that a person of a specific age, race, and gender expects to live without activity limitations or other health problems. Figure 4 shows that whites have more years of healthy life than African-Americans among people without disability in South Carolina. For example, according to recent survey, among people without disability at the time of survey, a 65-year old white person, in average, is expected to have 13.4 healthy years remaining in his/her life. On the other hand, an African-American at the same age, may only have 12.7 healthy years remaining in his/her life.

Life expectancy means that in average, how many years a person of a particular age, race or gender may expect to live. The life expectancy is often used as an indicator of the overall health of a population. Figure 3 shows that life expectancy is greater for white than that of African-Americans in almost all age groups in South Carolina.

Figure 4. Years of Healthy Life Without Disability by Race in South Carolina, 1998



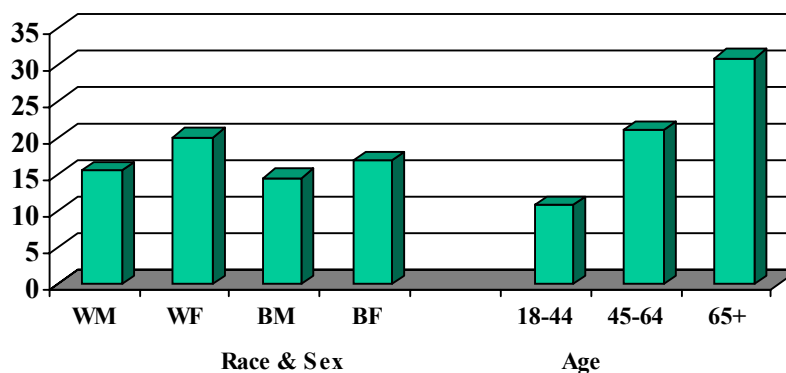
Disability

Disability severely affects a person's well-being and decreases the person's quality of life. Disability is a broad concept that may be perceived differently by different people. Based on the BRFSS disability / quality of life questions, people with a disability are defined as having any of the following conditions:

- 1) limited in the kind or amount of work because of any impairment or health condition;
- 2) having trouble learning, remembering, or concentrating because of the impairment or health problem;
- 3) using special equipment or help from others to get around;
- 4) limited in any way in any activities because of any impairment or health problem.

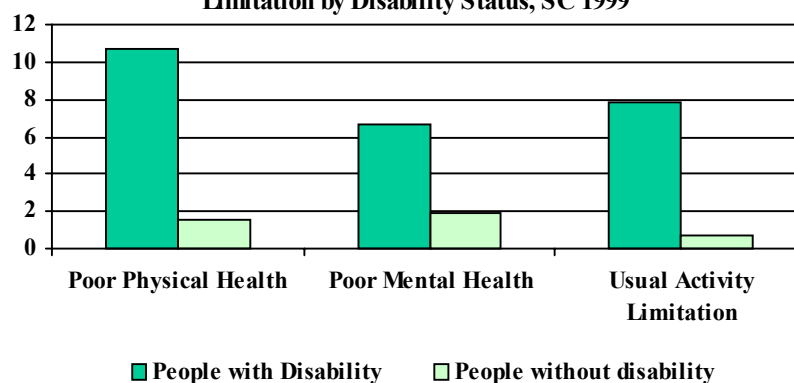
According to the 1999 South Carolina BRFSS, approximately 500,997 (17.1%) out of 2,929,806 non-institutionalized adults in South Carolina have some degree of disability due to an impairment or health problem. The survey indicates that women tend to have a higher prevalence of disability than men, and aging is clearly a contributor to the higher prevalence of disability (Figure 5).

Figure 5. Prevalence (%) of Disability in South Carolina, 1999



When they were asked about **general health**, only 56.6% of adults with a disability reported at least good health compared to 92.2% adults who are free of a disability. The average days of poor physical health, poor mental health and days with usual activity limitations are much greater among people with disability than among those without a disability (Figure 6).

Figure 4. Number of Days of Poor Physical, Mental Health and Activity Limitation by Disability Status, SC 1999

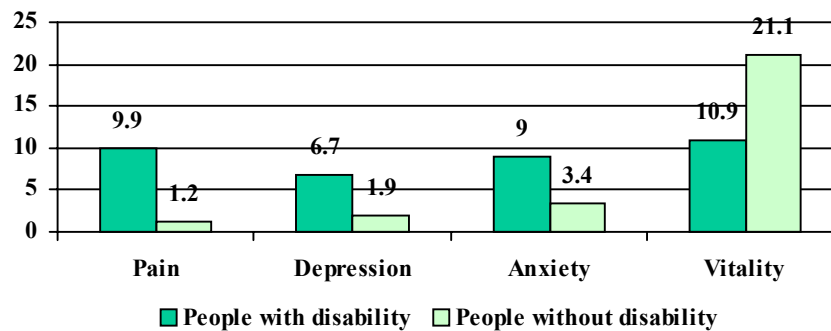


When asked for the **major impairment or health problem** that is responsible for the disability, a wide variety of chronic conditions, shown in Table 2, were selected by South Carolina adults. The most common reason is back or neck problems, which accounts for 18.5% of disability. Arthritis is listed as the second condition that causes the most disabilities. In addition, heart problems account for 8.5%, and fracture, bone/joint injury for 8.2%. Still, there are total 26.6% of people with disabilities that do not specify a major condition in this survey. To understand the detailed unspecified conditions, further studies are needed of this group.

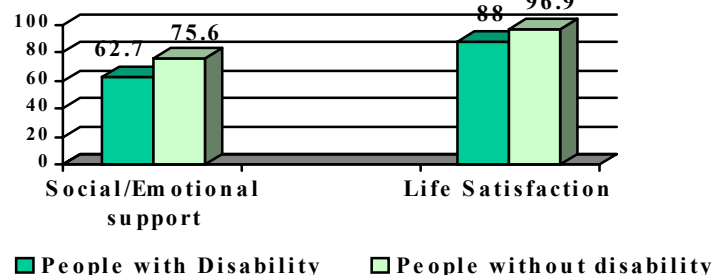
Table 2. Major Impairment or Health Problems Reported by Respondents with Disability

Major cause	%
Back or neck problems	18.5
Arthritis	14.1
Heart problem	8.5
Fracture, bone/joint injury	8.2
Walking problem	6.8
Lung/breathing problem	5.8
Eye/vision problem	3.1
Depression/anxiety emotional problem	2.8
Stroke problem	1.8
Diabetes	1.3
Cancer	1.1
Hypertension	0.7
Hearing problem	0.7
Other impairment/problem	26.6

It is well known that people with a disability also suffer more than most people from *physical and emotional distress*. SC BRFSS disability data also supports this theory. Figure 7. demonstrates that people with a disability experience a higher average number of days in pain, depression, and anxiety and report a lower average number of days as very healthy or full of energy (vitality).

Figure 7. Average Number of Days in Pain, Depression, Anxiety and Vitality, SC 1999

South Carolinians with a disability generally need more social and emotional support and care. However, only 62.5% of them report that they are usually getting social or emotional support when they need it compared to 75.6% of people without a disability. Furthermore, as seen in Figure 8, people with a disability report less general life satisfaction than people without a disability.

Figure 8. Prevalence (%) of Usually Getting Social Support And Life Satisfaction, SC 1999

Chronic Health Conditions

Chronic health conditions or illnesses include a large group of diseases that are prolonged, do not resolve spontaneously, and are rarely cured completely. According to the National Center for Disease Control and Prevention, there are more than 90 million Americans living with chronic illnesses. Those diseases are responsible for 70% of all deaths in the United States and 60% of the nation's medical care costs. Consequently, people with chronic diseases usually have general poor health-related quality of life and experience a shorter number of years of healthy life. Table 3 lists the prevalence of selected common chronic conditions in South Carolina.

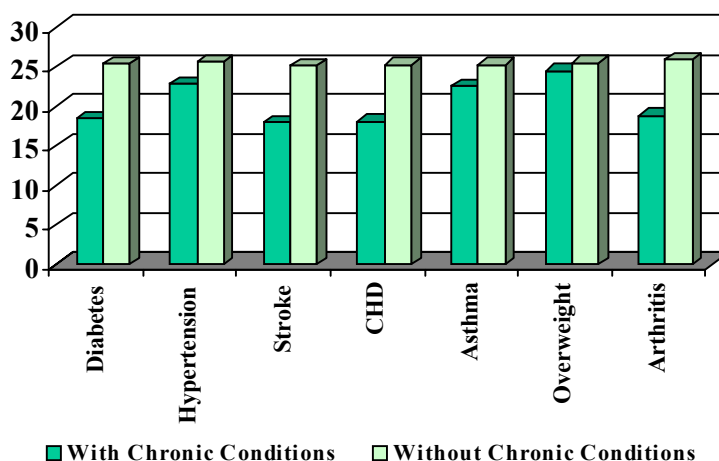
**Table 3. Prevalence of Selected Common Chronic Health Conditions, 1999
SC BRFSS**

Chronic Health Conditions	Prevalence (%)
Overweight (based on BMI)	54.9
Hypertension	25.2
Arthritis*	25.1
Asthma	9.7
Diabetes	6.4
Coronary Heart Disease	4.1
Stroke	2.1

* Preliminary data from SC BRFSS 2000

These conditions adversely affect a great portion of the state's population and the quality of life of South Carolinians. As seen in Figure 9, people with these chronic conditions experience fewer healthy days than those without them. Conditions like diabetes, stroke, coronary heart disease (CHD), and arthritis have the greatest disparity in healthy days between those with and without the conditions. Diabetes, stroke, coronary heart disease (CHD) and cancer have been among the ten leading causes of death in South Carolina for many years.

**Figure 9. Average Number of Healthy Days by
Chronic Conditions, SC 1999**



Cancer is a unique chronic condition that is represented by a large group of different diseases. Quality of life for cancer patients may depend on type and stage of cancers. Therefore, measurement of quality of life for cancer survivors is much more complex than that for patients with other diseases. In general, early detection decreases the burden of disease on cancer patients and considerably improves patients' quality of life. Yet despite impressive overall benefits of early detection of cancer by screening, large segments of the population, especially minorities, remain underrepresented in screening programs. The BRFSS data reveal that the percentages of African-Americans who reported getting screened for breast, cervical and colorectal cancer is significantly lower than that of whites.

According to the South Carolina Central Cancer Registry 1997 data, only 50% of cancers in whites and 42% of cancers in African-American are diagnosed at an early stage. Table 4 presents five-year survival rates for the top four cancers in South Carolina. Among these cancers, colon/rectum and lung/bronchus cancers have lower rates of early diagnosis, and poor overall five-year survival rates. In addition the need to improving the early diagnosis and five-year survival rates, further research is needed to understand the quality of life burden among patients with different types/stages of cancers.

Table 5. Number of new cases, percentage of early diagnosis and percentage of five-year survival for early diagnosis cases for the top four cancers in South Carolina, 1997

Type of cancer	Number of cases	% of cases diagnosed at an early stage	5-year survival rate for early stage	5-year survival rate for all stages
Prostate	2,796	80.6	100.0	93.1
Breast	2,454	63.5	96.5	85.0
Colon/rectum	1,834	35.5	90.0	61.3
Lung/bronchus	2,614	17.9	48.5	14.1

* Data Source: The South Carolina Central Cancer Registry

Unlike the other chronic conditions that are associated with higher mortality rates, arthritis is recognized as the nation's leading cause of disability. As "baby boomers" age, the impact of arthritis will increase dramatically. Based on preliminary results from the 2000 SC BRFSS survey, 25% of South Carolina adults reported doctor-diagnosed arthritis. Persons with arthritis reported seven fewer healthy days (in the last 30 days) than persons without arthritis. A national plan has recently been developed to address public health aspects of arthritis. South Carolina has a grant and is participating in a national effort to reduce the burden of arthritis and other rheumatic conditions.

South Carolina Administers Behavioral Risk Factor Surveillance System for 17 Years

The Behavioral Risk Factor Surveillance System (BRFSS) is the largest continuously conducted telephone health survey in the world. It enables the Centers for Disease Control and Prevention (CDC), state health department, and other health agencies to monitor modifiable risk factors, for chronic diseases and other leading causes of death. South Carolina has conducted the BRFSS since 1984. The Division of Epidemiology at the South Carolina Department of Health and Environmental Control is responsible for and oversees the activities of the BRFSS.

BRFSS is a series of monthly telephone surveys of randomly selected South Carolina adults, age 18 and older. South

Carolina households are selected by a stratified random sampling design. The survey instrument, designed jointly by CDC and the states, obtains information about the respondent's health risk behaviors. Many of the questions on the BRFSS are provided by the CDC and are revised annually. The BRFSS also includes questions developed by South Carolina, called "state-added questions." BRFSS results help measure progress in preventing disease and early death.

The results can identify demographic differences and trends in health-related behaviors, measure progress toward achieving state-specific objectives, and measure the

progress toward achieving the Year 2010 Health Objectives.

With 16 years of BRFSS data, trends in health-related behaviors can be monitored over time. Many of the answers for gaining insights into the behaviors of South Carolinians are captured in the South Carolina Behavior Risk Factor Surveillance System.

For more information about the SC BRFSS, contact Chronic Disease Epidemiology Division Dr. Manxia Wu at (803)737-7957



South Carolina Department of Health
and Environmental Control